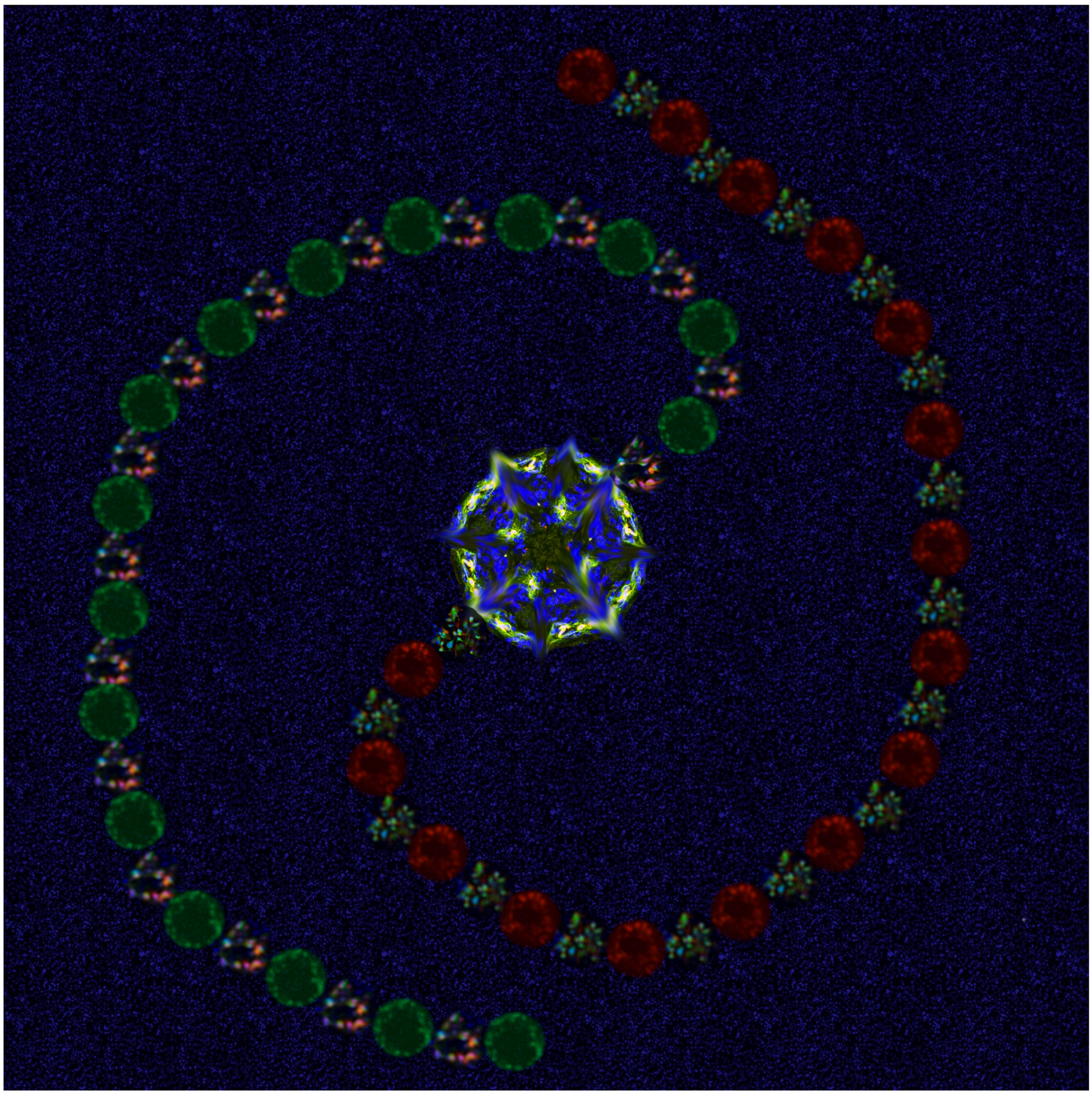

In a Plaque Galaxy Far, Far Away

Andrea Krieter
Pathobiology

Episode MDV: A New Hope for a Better Vaccine. It is a period of latency. A stimulus is received by latent virions which triggers reactivation of Marek's disease virus. The chicken's immune system counters by launching an innate immune response. Days of hard battle ensue until the cytotoxic T cells arrive at the site of infection and begin destroying virus infected host cells. However, one virion is able to colonize a host cell and return to latency. The whole battle was observed by keen scientists in the laboratory. Results indicated that the viral gene UL13 was essential for viral transmission though in vitro replication was not affected. Experimentation will continue in order to further understand what cellular and/or viral signaling pathways UL13 effects. After several in vitro. experiments with wild type UL13, they will mutate the virus, observe it in the lab again and finally test the mutants in the native host, a chicken. Several rounds of animal experiments will be carried out to generate sufficient data. Determining the mechanisms of UL13 will shed light on how an efficacious vaccine for Marek's disease can be produced, saving many chicken lives.